Molecular filter on chip design

Abstract :

This paper presents the use of a modified add-drop optical filter known as a PANDA microing resonator which can be designed on a chip. By using an optical tweezer, the required molecules can be trapped and moved to the required destinations, where finally, the required molecules can be retrieved (filtered) by using the tunable filter via the add-drop filter control. In application, storage molecules in the bottle in the designed chip can be trapped and moved to the required targets by optical tweezers, which can transport via the optical waveguide. Therefore, this technique can be used to form the molecular filter. This is a new technique and important for drug delivery, drug targeting and molecular electronics, which is described, the optical tweezer generation using a PANDA ring resonator is also reviewed. Results obtained have shown that the multivariable filter can be obtained by tunable trapping control